



Patuxent Science Meeting 2004 Poster Abstract

Techniques for Determining the Food Items Available to Seaducks in the Chesapeake Bay

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Historically, the Chesapeake Bay has been a major wintering area for seaducks. Surveys of three species, surf scoters (*Melanitta perspicillata*), black scoters (*Melanitta nigra*), and long-tailed ducks (*Clangula hyemalis*), have shown major declines in recent years. One possible explanation is a reduction of available food items. Seaducks within the mesohaline regions of the Bay typically feed at depths of 10 to 40 feet. These areas are usually the first to be effected by low oxygen conditions, which may effect the quantity and types of food items available to seaducks. Two study sites were chosen (Herring Bay and Poplar Island), and 20 sample points were randomly selected at each location in water 10 to 40 feet deep. Macrobenthic invertebrates, sediment characteristics, and water quality parameters were determined at each point. Counts of seaducks were conducted from a boat on different days at each point to correlate the available food with populations of seaducks. Preliminary results have shown that concentrations of seaducks are associated with areas with hard substrate, with hooked mussel (*Ischadium recurvum*) as the dominant benthic species. Results of this study will be used to assist in the management of seaduck populations and habitat.